


EMC Test Report		
Project No.		LBE032403
Equipment under Test		
	Applicant	Samsung Electronics Co.Ltd 416 Maetan-3 Dong, Youngtong-Ku, Suwon City, Gyeonggi-Do, Korea, 442-742
	FCC ID	A3L04DELTA2
	Product Name	Digital Camcorder
	Model Name	SCD-107
	Manufacturer	Samsung Electronics Co. Ltd
	Brand Name	SAMSUNG
	Variant Model	See Page 2
Issued Date		05-Dec-03
Applied Standards		FCC Part 15
Result		Passed The equipment under test has found to be compliant with the applied standards.
	Name/Position	Signature
Tested by	Jay Yong, PARK Test Engineer	<i>J. Y Park</i>
Reviewed by	No Cheon, Park Manager of EMC Lab.	<i>N. C. Park</i>
Authorized by	Kyu Baek, Chung Chief of EMC Lab.	<i>K. B. Chung</i>
SAMSUNG ELECTRONICS Co., Ltd. SUWON EMC Test Lab.		1. This test reports does not constitute an endorsement by NIST/NVLAP or U.S Government. 2. This test report is to certify that the tested device properly complies with the requirements of FCC Rules and Regulations Part 15 Subpart B Unintentional Radiators. All tests necessary to show compliance to the requirements were and these results met the specifications requirement. This laboratory is registered by the NIST/NVLAP, U.S.A. The test reported herein have been performed in accordance with its terms of registration. <div style="text-align: right;">  NVLAP LAB CODE </div>
	Address	416 Maetan-3 Dong, Youngtong-Ku, Suwon City, Kyungki-Do, Korea, 442-742
	Telephone No.	82-31-200-2135
	Fax No.	82-31-200-2189

1. General Information

1.1 Basic Information related Product

Applicant	Samsung Electronics Co. Ltd
Product name	A3L04DELTA2
Model name	SCD-107
Brand Name	SAMSUNG
Manufacturer	Samsung Electronics Co. Ltd
Variant Models	-

1.2 Power Input Ports

Description	Voltage(V)	Frequency(Hz)	No of phases
Mains Cable	120V	60Hz	1

1.3 EUT & Support Equipment

Used EUT and Peripherals

Mark	Item	Model No.	Serial No.	Manufacturer	Remark
A	Digital Camcorder	SCD-107	-	SAMSUNG	EUT
B	Cradle	PR03S	4M279A02	DELL	-
C	Note PC	OX138-A01-T	1009-007	DELL	-
D	Printer	BJC-50	CLG001000275	CANON	-
E	AC Adapter	AD-360U	CLG001000275	CANON	For Printer
F	AC Adapter	AA-E8	6CAWB00014	SAMSUNG	For EUT
G	AC Adapter	PA-E	8H051	DELL	For Notebook
H	USB Memory	256MB	-	SAMSUNG	-

Used Cable Description

No.	Item	Length[m]	Shielded	Remark
1	AC Power Cable	1.5	N	EUT
2	AC Power Cable	1.2	N	For Note PC
3	S-Video Cable	1.5	N	-
4	A/V Cable	1.5	N	-
5	Printer Cable	1.5	Y	-
6	AC Power Cable	1.5	N	For Printer
7	USB Cable	1.5	Y	-

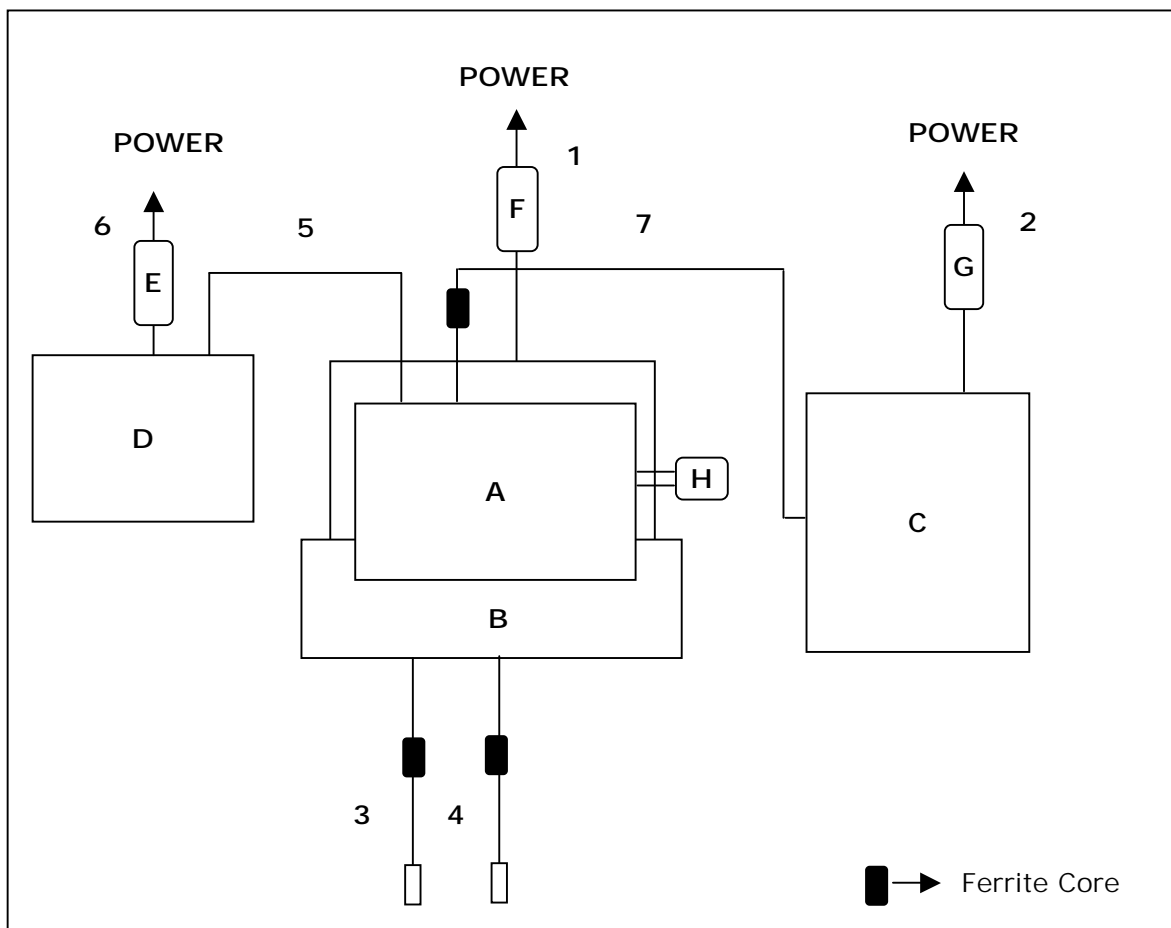
1.4 Operating Mode and Conditions

The system was configured for testing in typical fashion use.

The mode of operation utilized for testing was selected to best simulate typical EUT use.

- Recording
- Play

1.5 Block Diagram



1.6 Test Facility

General Information

The EMI/EMS measurement facilities used to collect the tested data are located at 416 Maetan 3 Dong, Youngtong-Ku, Suwon City, Gyeonggi-Do, Korea.

This sites are constructed in conformance with the requirements of ANSI C63.4 and CISPR 16-1 & 16-2. SAMSUNG Electronics Co.,Ltd is accredited by Korea Laboratory Accreditation scheme(KOLAS) which . signed the International Laboratory Accreditation Cooperation(ILAC) Mutual Recognition Arrangement (M for the above test item(s) and test method(S)

Accreditation and Listing



Reg. No. 124



Reg. No. KR0004



No.195



App. No.001



LAB CODE 200447-0



Reg. No.98856



R-1221,C-1095



H9354285

1.7 Applied Standards

List

FCC Rule Part(s)	Test Procedure(s)
FCC Part 15 Subpart B	ANSI C63.4-2001
	-
	-

2. Summary of Test Results

Result : **Pass**

The equipment under test(EUT) has been found to comply with the applied standards

Section of the Product Standard		Applied Standard	Result
Electromagnetic Emission Test			
3.1	Conducted Emission	FCC Part 15	Complied
3.2	Radiated Emission	FCC Part 15	Complied

* N/A : Test not applicable

3. Description of Individual Tests

3.1 Disturbance voltage at the mains terminals

Test Information	
Test Engineer	Jay Yong, PARK
Test Date	03-Dec-03
Climate Condition	Ambient Temperature : 27.0 , Relative Humidity : 31%
Test Place	Shield Room #5

Test Equipments			
Equipment	Model Name	Manufacturer	Serial No.
TEST RECEIVER	ESI26	R & S	839809/002
LISN	ESH3-Z5	R & S	847265/028
LISN	ESH3-Z5	R & S	100261
Test Software	EP5/CE	TOYO	Version : 2.0.860

Test Setup

EUT was placed on a platform of nominal size, raised 80cm above the conducting ground plane. The rear of table top was located 40cm to the vertical conducting plane. The rear of EUT was aligned and flushed with rear of tabletop. All other surfaces of tabletop was at least 80cm from any other grounded conducting surface. All unused 50 ohm connectors of the LISN were resistively terminated in 50 ohm when not connected to the measuring equipment
See photo.

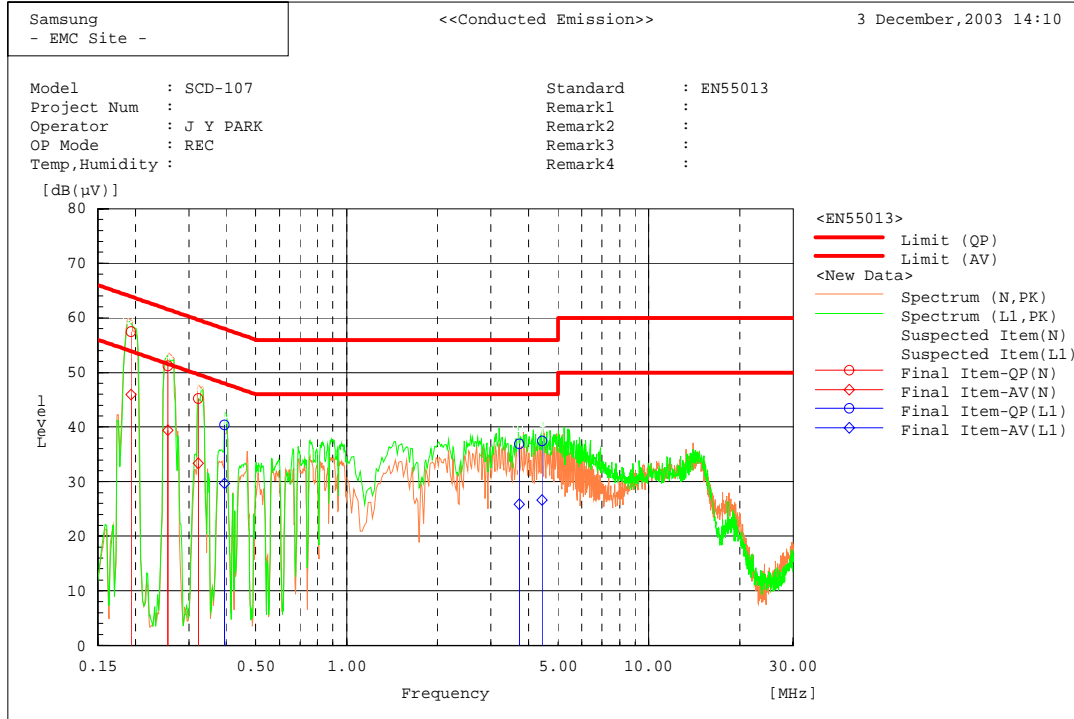
Test Result

Measurement Results	Passed
	The Measured emissions of the EUT have found to be below the specified limits.

Test Data

* Operating Mode : Recording

LISN Mode : Live & Neutral



Final Result

--- N Phase ---

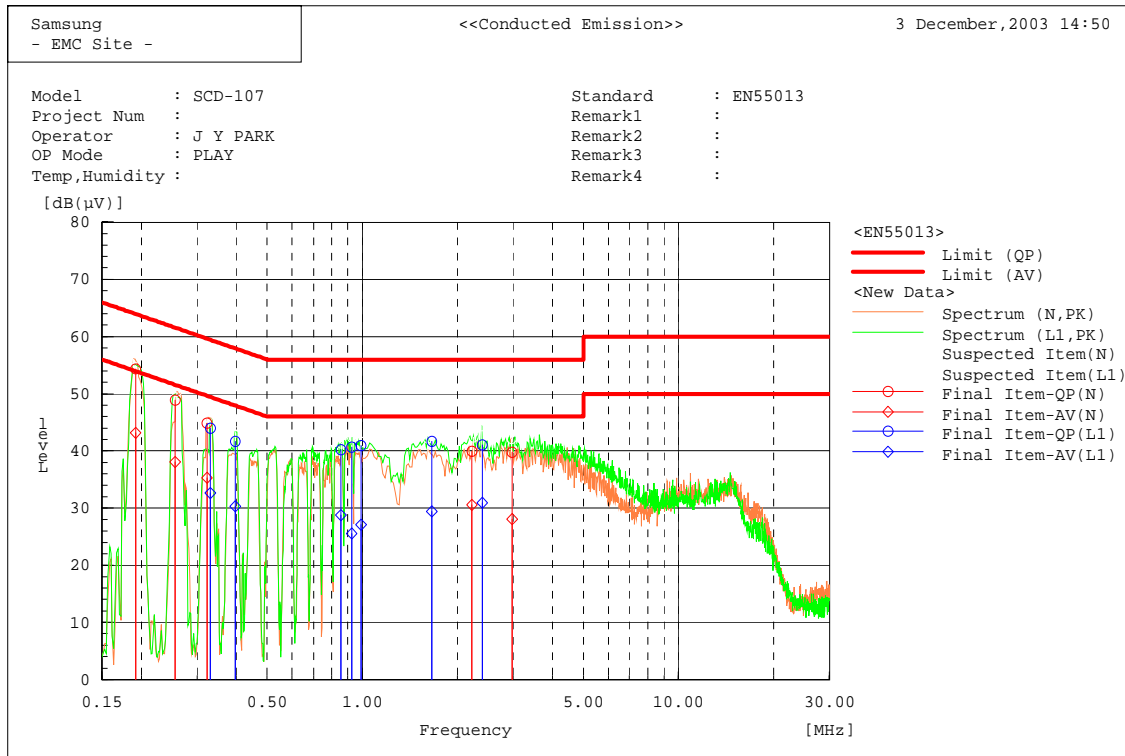
No.	Frequency [MHz]	Reading		c.f [dB]	Result		Limit		Margin	
		QP [dB(µV)]	AV [dB(µV)]		QP [dB(µV)]	AV [dB(µV)]	QP [dB(µV)]	AV [dB(µV)]	QP [dB]	AV [dB]
1	0.19324	57.4	45.8	0.1	57.5	45.9	63.9	53.9	6.4	8.0
2	0.25567	51.1	39.3	0.1	51.2	39.4	61.6	51.6	10.4	12.2
3	0.32234	45.2	33.2	0.1	45.3	33.3	59.6	49.6	14.3	16.3

--- L1 Phase ---

No.	Frequency [MHz]	Reading		c.f [dB]	Result		Limit		Margin	
		QP [dB(µV)]	AV [dB(µV)]		QP [dB(µV)]	AV [dB(µV)]	QP [dB(µV)]	AV [dB(µV)]	QP [dB]	AV [dB]
1	0.39312	40.3	29.6	0.1	40.4	29.7	58.0	48.0	17.6	18.3
2	3.72011	36.7	25.6	0.2	36.9	25.8	56.0	46.0	19.1	20.2
3	4.43542	37.3	26.5	0.2	37.5	26.7	56.0	46.0	18.5	19.3

* Operating Mode : Play

LISN Mode : Live & Neutral



Final Result

--- N Phase ---

No.	Frequency [MHz]	Reading QP [dB(μV)]	Reading AV [dB(μV)]	c.f [dB]	Result QP [dB(μV)]	Result AV [dB(μV)]	Limit QP [dB(μV)]	Limit AV [dB(μV)]	Margin QP [dB]	Margin AV [dB]
1	0.19207	54.2	43.0	0.1	54.3	43.1	63.9	53.9	9.6	10.8
2	0.25603	48.8	38.0	0.1	48.9	38.1	61.6	51.6	12.7	13.5
3	0.32244	44.8	35.2	0.1	44.9	35.3	59.6	49.6	14.7	14.3
4	2.2224	39.9	30.5	0.1	40.0	30.6	56.0	46.0	16.0	15.4
5	2.97071	39.7	27.9	0.1	39.8	28.0	56.0	46.0	16.2	18.0

--- L1 Phase ---

No.	Frequency [MHz]	Reading QP [dB(μV)]	Reading AV [dB(μV)]	c.f [dB]	Result QP [dB(μV)]	Result AV [dB(μV)]	Limit QP [dB(μV)]	Limit AV [dB(μV)]	Margin QP [dB]	Margin AV [dB]
1	0.33088	43.9	32.6	0.1	44.0	32.7	59.4	49.4	15.4	16.7
2	0.39687	41.6	30.2	0.1	41.7	30.3	57.9	47.9	16.2	17.6
3	0.85527	40.2	28.6	0.1	40.3	28.7	56.0	46.0	15.7	17.3
4	0.92628	40.6	25.5	0.1	40.7	25.6	56.0	46.0	15.3	20.4
5	0.98889	40.9	27.0	0.1	41.0	27.1	56.0	46.0	15.0	18.9
6	1.65642	41.6	29.3	0.1	41.7	29.4	56.0	46.0	14.3	16.6
7	2.39482	40.9	30.9	0.1	41.0	31.0	56.0	46.0	15.0	15.0

3.2 Radiated Disturbances

Test Information	
Test Engineer	Jay Yong, PARK
Test Date	04-Dec-03
Climate Condition	Ambient Temperature : 23.1 , Relative Humidity : 49%
Test Place	10m Semi-Anechoic Chamber

Test Equipments			
Equipment	Model Name	Manufacturer	Serial No.
Test Receiver	ESCS30	R & S	100104
Secetrum Analyzer	E7405A	AGILENT	US41110272
RF Selector	NS4900	TOYO	0303-015
Mast Controller	HD2000	HD	HD20000902027
Bi-Log Antenna	CBL6112B	SCHAFFNER	2766
Preamp	8447D	Agilent	2944A10430
Test Software	EP5/RE	TOYO	Version : 2.0.860
Antenna Mast	MA240	HD	240/620
Turn Table	DS412	HD	-

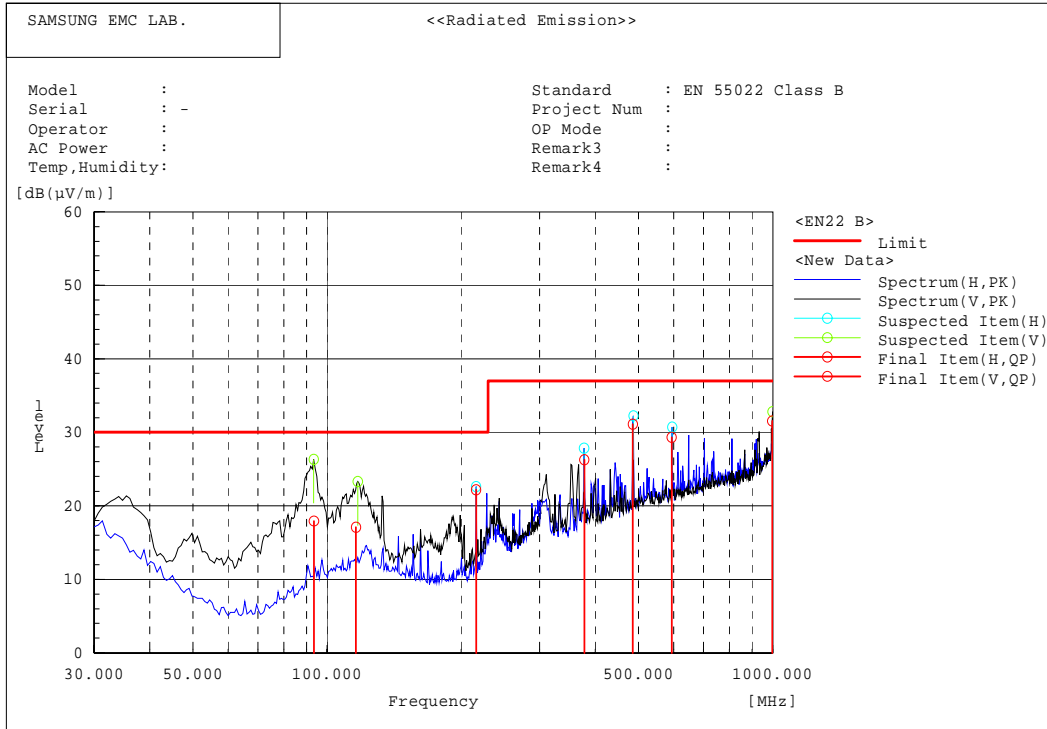
Test Setup

EUT was placed on a platform of nominal size and raised 80cm above the conducting ground plane. The rear of EUT was aligned and flushed with rear of tabletop. Test was made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna was varied in height above the conducting ground plane to obtain the maximum signal strength. See photo.

Test Result

Measurement Results	Passed
	The Measured emissions of the EUT have found to be below the specified limits.

* Operating Mode: play



Final Result

--- Horizontal Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(µV)]	c.f [dB(1/m)]	Result [dB(µV/m)]	Limit [dB(µV/m)]	Margin [dB]	Remark
1	215.996	38.9	-16.7	22.2	30.0	7.8	
2	485.990	38.3	-7.2	31.1	37.0	5.9	
3	594.000	35.2	-5.9	29.3	37.0	7.7	
4	378.000	35.9	-9.6	26.3	37.0	10.7	

--- Vertical Polarization (QP)---

No.	Frequency [MHz]	Reading [dB(µV)]	c.f [dB(1/m)]	Result [dB(µV/m)]	Limit [dB(µV/m)]	Margin [dB]	Remark
1	93.558	35.1	-17.2	17.9	30.0	12.1	
2	116.164	32.1	-15.0	17.1	30.0	12.9	
3	998.600	31.0	0.5	31.5	37.0	5.5	

4. Appendix

4.1 Test Photography



Pic. 1 Conducted Emission [Front]



Pic. 2 Conducted Emission [Rear]



Pic. 3 Radiated Emission [Front]



Pic. 4 Radiated Emission [Rear]

4.2 EUT Photography



Pic. 5 EUT [Front]



Pic. 6 EUT [Rear]